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| 10/773,211                     | 02/09/2004  | Akira Yamaguchi      | Q78009              | 1097             |
| 23373 7590 10/14/2008          |             |                      |                     |                  |
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| CALEY, MICHAEL H               |             |                      |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/773,211

**Applicant(s)**

YAMAGUCHI ET AL.

**Examiner**

MICHAEL H. CALEY

**Art Unit**

2871

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 and 13 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-11 is/are rejected.
- 7) ☒ Claim(s) 5 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 1-3, 6, 7, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura (U.S. Patent Application Publication No. 2002/0085284 “Nakamura ‘284”) in view of Nakamura (U.S. Patent Application Publication No. 2001/0035929 “Nakamura ‘929”) and Shimodaira (U.S. Patent No. 6,818,263).**

Regarding claims 1-3, 6, and 7, Nakamura ‘284 discloses a display comprising:

a display device of a matrix type having a resolution of 100 to 300 ppi (Paragraph [0161]) to display an image; and

at least one anti-reflection layer (Figure 1 element 4) on a side of a front surface of the display device (Paragraph [0174]).

Nakamura '284 fails to disclose the average specular reflectivity, the color quality of reflected light, and the flatness of the surface on which the anti-reflection layer is placed. Nakamura '929, however, teaches an anti-reflection layer having an average specular reflectivity of 0.5% or less at an incident angle of 5 degrees in a wavelength range of 450 to 650 nm (Paragraph [0008]) and light incident at 5 degrees in a wavelength range of 380 to 780 nm reflected with color falling within the proposed ranges of the CIE 1976 L\*a\*b\* color space (Paragraph [0018]). Shimodaira teaches a smooth base layer according to the proposed JIS standard as optimal for attaching optical layers (Column 11 lines 25-50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the anti-reflection layer disclosed by Nakamura'284 to have the proposed reflectivity characteristics and base layer characteristics. One would have been motivated to form the anti-reflection layer to have low reflectivity and lack of coloration to reduce the effect of external light on the displayed image (Nakamura '929: Column 4 lines 51-65, Column 5 lines 10-25). One would have been motivated to form the anti-reflection layer on a layer having the proposed smoothness standard to benefit from a surface for easily and reliably attaching an optical layer, such as an anti-reflection layer (Shimodaira: Column 11 lines 25-51).

Regarding claims 10 and 11, all limitations refer to only a recitation of the intended use of the claimed invention.

**Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura '284 in view of Nakamura '929 and Shimodaira and in further view of Satoh et al. (U.S. Patent No. 5,847,795).**

Nakamura '284 fails to disclose a protective panel. Satoh, however, teaches a protective panel as proposed (Figure 1 element 4) attached to the front surface of the display in a manner that puts a distance between the protective panel and the front surface of the display device to avoid contact, wherein the anti-reflection layer is placed on each side of the protective panel (Figures 3 and 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to attach a protective panel as proposed. One would have been motivated to attach such a protective panel as a means of protecting the surface of the display while improving the displayed image by reducing surface reflections (Satoh: abstract).

**Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura '284 in view of Nakamura '929 and Shimodaira and in further view of Yamashita et al. (U.S. Patent No. 7,206,005 "Yamashita").**

Nakamura '284 fails to disclose the proposed screen size or the display as a monochrome display. Yamashita, however, teaches a monochrome display having a 20" screen size as optimal for some applications, such as a medical display (Column 1 lines 11-45).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to form the display to have a size within the proposed range and to be monochrome.

One would have been motivated to form such a display as an optimization for medical use according to the teachings of Yamashita.

***Allowable Subject Matter***

Claims 5 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 12 and 13 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 5, the prior art fails to disclose or suggest the hard coat and three sub-layers of an anti-reflection film having the proposed refractive index properties.

Regarding claims 12 and 13, the prior art fails to disclose or suggest the function of measuring surface reflection when power is off and luminance when power is on, judging measurement data, displaying and saving results, and correcting gradation data based on the measurement data.

Regarding claim 14, the prior art fails to disclose or suggest the anti-reflection layer as proposed that does not have an anti-glare property.

***Response to Arguments***

Applicant's arguments filed 7/1/08 have been fully considered but they are not persuasive.

Regarding claim 1, Applicant argues that the prior art fails to disclose or suggest a maximum height Rz set at .04 microns or less according to the JIS B 0601-2001 standard. The examiner acknowledges that Shimodaira does not identify the Rz value (Remarks Page 7). Shimodaira, however, does teach the layer on which the anti-reflection layer is placed as "preferably smooth" (Column 11 line 28) and that optical parts such as an anti-reflection layer are able to be used in conjunction with the layer (Column 11 lines 30-32, 43-59) due to the smooth characteristic. Therefore, according to the teachings of Shimodaira, it would have been obvious to one of ordinary skill in the art to make the surface as smooth as possible, with Ra and Rz values approaching zero. Accordingly, the examiner considers the claimed ranges of Ra and Rz as taught by Shimodaira.

Further regarding claim 1, Shimodaira explicitly teaches the smooth base layer as ideal for attaching an anti-reflection layer (Column 11 lines 28-59, particularly 30-32, 43-59).

In response to applicant's argument that the claimed anti-reflection layer has no anti-glare properties, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). One would have been motivated to apply the teachings of Shimodaira to benefit from a surface for easily and reliably attaching an optical layer, such as an anti-reflection layer (Shimodaira: Column 11 lines 25-51). Nakamura '929 and Nakamura '284 each teach an optical

film that has both anti-glare and anti-reflection properties, so it is unclear how the combination with Shimodaira would deteriorate the anti-glare or anti-reflection property.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period



will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL H. CALEY whose telephone number is (571)272-2286. The examiner can normally be reached on M-F 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael H. Caley/

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Primary Examiner, Art Unit 2871